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UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/664,696	09/16/2003	Timothy Wakeley	10002635-2	4712

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EXAMINER
HUYNH, KIM T

ART UNIT	PAPER NUMBER
2112	

DATE MAILED: 03/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12/28/04*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-25* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-25* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *16 September 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All   b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1.   The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2.   Claims 1-25 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Claims 1-25 indicated that "in response to the second signal, the bridge sending a third signal to the computer system to indicate that the "bridge" has been removed from the computer system" is not supported in the specification. Should be "device" instead, correction is required.

Claim Rejections - 35 USC § 102

3.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4.   Claims 1, 6-13, 18-25 are rejected under 35 U.S.C. 102(e) as being anticipated

by Hendry et al. (US Patent 6,282,646)

As per claim 1, Hendry discloses method for allowing a device to be removably

attached to a computer system while maintaining the system integrity, comprising

the steps of:

- configuring a bridge(fig.4, 48, ie device manager) between the

  device(fig.4, 44, ie PC cards) and the computer system(fig.4, 22, ie display

  manager), (col.2, lines 23-44); wherein

- while in an attached state if recognizing that the device has been removed

  from the bridge, then the bridge transitioning into a cleanup state, then a

  removed state; (col.2,lines 23-33, wherein automatically recognized

  changes configuration implies recognized removed or added)

- while in the cleanup state, performing the ordered steps of the bridge

  sending a first signal to the computer system;(col.2, lines 35-36, ie in

  response to detect the removal of device, video driver send 1st signal to

  display to display manager fig.1, 22) in response to the first signal, the

  computer system sending a second signal to the bridge; (col.2, lines 39-

  42, ie in response to the display manager 22, the display manager send

  2nd signal back to the video driver for configuration of the display) and in

  response to the second signal, the bridge sending a third signal to the

  computer system to indicate that the bridge(device) has been removed

  from the computer system; (col.2,lines 42-44, ie immediately unavailabled

after deleted(removed) frame buffer, automatically recognized of the

removal)

- removing the device from the bridge is performed without giving prior

  notice to the bridge, nor the computer system; (col.2, lines 23-33, wherein

  automatically recognized device removed or added implies without notice)

- the attached state indicating that the device has been attached to the

  computer system; and (col.5, lines 17-24 ie detection of the presence

  device)

- the removed state indicating that the device has been removed from the

  computer system. (col.5, lines 17-24 ie detection of the absence device)

As per claims 6,18, Hendry discloses while in the cleanup state, if the bridge

receives a processing command, then the bridge sends a fourth signal to the

computer system indicating that the bridge cannot process the command. (col.7,

line 66-col.8, line 12)

As per claims 7, 19, Hendry discloses while in the cleanup state, the bridge

further sends a fifth signal to the computer system indicating that the command

has been terminated. (col.7, line 66-col.8, line 12)

As per claims 8, 20, Hendry discloses wherein, while in the cleanup state, the

computer system, upon receiving the fourth or the fifth signal from the bridge,

provides a sixth signal to indicate that the command cannot be processed. (col.7,

line 66-col.8, line 12)

As per claims 9, 21, Hendry discloses the method further comprising the step of providing a buffer between the device and the bridge for protecting the bridge from disruption signals from the device. (col.5,lines 15-30, ie sensor 46, actuates/unactuates switch)

As per claims 10, 22, Hendry discloses the method further comprising the step of providing a buffer between the device and the bridge wherein the buffer prevents the signals passing from the device to the bridge. (col.5,lines 15-30)

As per claims 11,23, Hendry discloses wherein the bridge transitioning to the cleanup state upon recognizing that the bridge cannot communicate with the device via the buffer. (col.5,lines 15-30)

As per claim 12, 24, Hendry discloses wherein the bridge recognized that the device has been removed from the bridge based on a signal asserted at a control pin of the bridge; and the signal changes when the control pin of the bridge is engaged to or disengaged from a control pin of the device. (col.5,lines 15-30)

As per claim 13, Hendry discloses the system for allowing a device to be removably attached to a computer system while maintaining the system integrity, comprising: a bridge interfacing between the device and the computer system; wherein

- while in an attached state if recognizing that the device has been removed from the bridge, then the bridge transitioning into a cleanup state, then a removed state; (col.2,lines 23-33, wherein automatically recognized changes configuration implies recognized removed or added)

- while in the cleanup state the bridge sending a first signal to the computer

  system; (col.2, lines 35-36, ie in response to detect the removal of device,

  video driver send 1st signal to display to the display manger fig.1, 22) in

  response to the first signal, the computer system sending a second signal

  to the bridge; (col.2, lines 39-42, ie in response to the display manager 22,

  the display manager send 2nd signal back to the video driver for

  configuration of the display) and in response to the second signal, the

  bridge sending a third signal to the computer system to indicate that the

  bridge(device) has been removed from the computer system; (col.2,lines

  42-44, ie immediately unavailabled after deleted(removed) frame buffer,

  automatically recognized of the removal).

- removing the device from the bridge is performed without giving prior

  notice to the bridge, nor the computer system; (col.2, lines 23-33, wherein

  automatically recognized device removed or added implies without notice)

- the attached state indicating that the device has been attached to the

  computer system; and (col.5, lines 17-24 ie detection of the presence

  device)

- the removed state indicating that the device has been removed from the

  computer system. (col.5, lines 17-24 ie detection of the absence device)

As per claim 25, Hendry discloses a method for hot removing a device from a

system, comprising the steps of:

- configuring a bridge between the device and the system; and (col.2, lines 23-43)

- configuring a buffer between the device and the bridge for protecting the bridge from signals from the device; wherein (col.5,lines 15-30, ie sensor 46, actuates/unactuates switch)

- while in an attached state if recognizing that the device has been removed from the bridge, then the bridge transitioning into a cleanup state, then a removed state; (col.2,lines 23-33, wherein automatically recognized changes configuration implies recognized removed or added)

- while in the cleanup state, the bridge sending a first signal to the system; (col.2, lines 35-36, ie in response to detect the removal of device, video driver send 1st signal to display to display manager fig.1, 22) in response to the first signal, the system sending a second signal to the bridge; (col.2, lines 39-42, ie in response to the display manager 22, the display manager send 2nd signal back to the video driver for configuration of the display) and in response to the second signal, the bridge sending a third signal to the system to indicate that the bridge(device) has been removed from the system. (col.2,lines 42-44, ie immediately unavailabled after deleted(removed) frame buffer, automatically recognized of the removal).

Claim Rejections - 35 USC § 103

5.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6.   Claims 2-5, 14-17 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Hendry et al. (US Patent 6,282,646) in view of Mosgrove (US Patent 6,418,493)

As per claims 2, 14, Hendry discloses wherein the bridge using a first protocol to

communicate with the computer system(col.3, lines 21-50), and

Hendry discloses all the limitations as above except using a second

protocol to communicate with the device. However, Mosgrove discloses

configuration events such as insertion or removal of a device by the protocols

appropriate for the bus implementation that cause physical addresses to change.

(col.2, lines 6-15)

It would have been obvious to one having ordinary skills in the art at the

time the invention was made to incorporate Mosgrove's teaching into Hendry's

system so as to reduce the effects of when the dynamic bus system is

reconfigured. (col.2,lines 28-49)

As per claims 3, 15, Hendry discloses wherein the first protocol or the second

protocol is: (col.3,lines 43-50)

- a protocol complying with the SCSI standard;

- a protocol complying with the IDE standard; a protocol complying with the fibre channel standard;

- a protocol complying with the IEEE 1394 standard; or

- a protocol complying with the USB standard.

As per claims 4, 16, Hendry discloses wherein the bridge includes a processing unit and memory to convert commands of the first protocol and the second protocol. (col.3,lines 56-64)

As per claims 5, 17, Hendry discloses wherein the first protocol is the same as the second protocol. (col.4, lines 34-45, wherein configuration of display device corresponding device driver implies same protocol)

Response to Amendment

7.   Applicant's amendment filed on 12/28/04 have been fully considered but are moot in view of the new ground(s) of rejection.

Conclusion

8.   *Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kim Huynh whose telephone number is (571)272-3635 or via e-mail addressed to [kim.huynh3@uspto.gov]. The examiner can normally be reached on M-F 9.00AM- 6:00PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Rinehart can be reached at (571)272-3632 or via e-mail addressed to [mark.Rinehart@uspto.gov].*

The fax phone numbers for the organization where this application or proceeding is assigned are (703)872-9306 for regular communications and After Final communications. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571)272-2100.

Kim Huynh

March 11, 2005

TIM VO
PRIMARY EXAMINER